United States
Department of
Agriculture

Natural Resources
Conservation
Service

Grazing Lands Management
Mowing and Haying as Management Tools

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What Is It?

One of the objectives of a range management program is to increase the production and health of native rangeland through periods of rest and grazing. A good planned grazing system applies this principle by scheduling periods of rest and grazing throughout the entire growing season. In some instances, the grass may "get ahead" of the animals and become tough and unpalatable, providing low quality forage. When this happens, the producer must decide how to improve the pasture.

Prescribed burning has recently been used for pasture improvement by removing the old forage and returning it to the soil via the ashes. Since prescribed burning is a very exact science in its timing of applications and that it removes all material from the ground surface, this may not be an option for all producers.

Mowing and haying are alternatives to prescribed burning. Mowing is shredding or clipping the forage and leaving the residue on the soil surface. Haying is mowing and then removing the forage for livestock feed or other uses off of the site in which it was grown.

Considerations

Some considerations to determine if mowing or haying are the most efficient method to improve pasture utilization include:

- Cost of machinery – Is the machinery available now to mow or hay the forage? If the needed machinery must be bought or leased, it may not be cost-effective to mow or hay the forage.
- Timing – Is the timing of the mowing or haying when the grass will be actively growing? The grass should be mowed or hayed prior to the boot stage to allow for adequate regrowth following the mowing or haying. If the grass has seed heads present prior to haying, the palatability will be low and the hay should be ground if it is to be used a feed for livestock. Mowing or shredding the grass after seed heads develop will allow for seeds to be returned to the soil.

  It is recommended that 6 weeks of regrowth or 10 to 12 inches of grass growth are obtained before grazing, and at least 6 to 8 inches of regrowth occur prior to the first killing frost. After a killing frost, grazing can be done with little effect on plant survival. Four to 6 inches of stubble height after grazing until spring is recommended for snow capture and wildlife cover.
- Hay quality – The timing of the haying will determine the quality and palatability of the hay. The quality of the hay declines after the seed heads appear. If the hay is to be used as feed, a protein supplement will need to be fed. The hay may also need to be ground before livestock will consume it. The hay should be tested and analyzed for crude protein and TDN before feeding to ensure the animals are receiving the recommended amount of nutrition.
- Plant species – The predominant grass species that may be mowed or hayed because of maturity are Switchgrass, Little bluestem, and Big bluestem. Avoid mowing areas infested with noxious weeds.
- Effect on planned grazing system – Mowing and haying should be considered part of a planned grazing system if distribution is a problem or the vegetation has grown unpalatable to livestock due to maturity. The removal of the "wolfy" plants or mature plants, such as in the case of Little Bluestem, will allow the livestock to graze the plants more effectively. Mowing and haying removes more of the recommended forage allowed so adequate rest to allow for winter months if needed. Allowing adequate growth prior to mowing or haying and adequate regrowth before grazing is essential for plant survival. This will allow adequate plant food reserves to be developed.

- It is not recommended to mow or hay the same area every year. It is a tool to be considered for pasture management and looked at as an option to improve distribution and forage quality. A planned grazing system will effectively maintain forage quality and rangeland health.

Where to Get Help

For more information on rangeland management, contact the local office of the U.S. Department of Agriculture's Natural Resources Conservation Service. NRCS personnel give technical assistance to landowners and operators through local Natural Resource Districts.